[*All Rights Reserved.*]

ROYAL GARDENS, KEW.

BULLETIN

OF

MISCELLANEOUS INFORMATION.

No. 20.] AUGUST. [1888.

LVI.—COLONIAL FRUIT—(continued).

In the *Kew Bulletin* for the months of November 1887 and January 1888 information, derived from official sources, was supplied, respecting the capabilities of certain Colonies for the production of fruits. The *Bulletin* for November 1887 was wholly devoted to a comprehensive report on the fruits of Canada. The *Bulletin* for January 1888 was devoted to reports furnished by their respective Governments on the fruits of Victoria, South Australia, Western Australia, Tasmania, New Zealand, Cape Colony, and Mauritius. In the present *Bulletin* it is proposed to continue the publication of such reports, and we now present a summary of information relating to the fruit productions and fruit resources of the West Indian Colonies:—Jamaica, Bahamas Islands, Barbados, St. Lucia, St Vincent, Grenada, Tobago, Trinidad, and British Guiana.

The list of questions to which answers are now furnished was published in the *Bulletin* for November 1887, pp. 2–4. This list, if

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,
BY EYRE AND SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.

And to be purchased, either directly or through any Bookseller, from
EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; or
ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; or
HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

1888.

Price Twopence.

consulted, will afford a key to the arrangement of the reports and furnish those interested with the special points to which the inquiry has been directed.

Jamaica.

The chief fruit interest in the West Indies is connected with Jamaica, The exports of fruits from this island are of the annual value of a quarter of a million sterling. The following Report was prepared by Mr. J. H. Hart before his transfer to the charge of the Botanical Gardens at Trinidad:—

The Chief fruits of the island of Jamaica are Cocoa-nut (*Cocos nucifera*), Banana (*Musa sapientum*), Orange (*Citrus Aurantium*), Pineapple (*Ananas sativa*), Lime (*Citrus Medica*, var. *acida*), French Lime (*Citrus Medica*, var. *Limetta*), Mango (*Mangifera indica*), Citron (*Citrus Medica*), Lemon (*Citrus Medica*, var. *Limonum*), Shaddock (*Citrus decumana*), Forbidden Fruit (*Citrus decumana*, var.) Avocada Pear (*Persea gratissima*), Bread Fruit (*Artocarpus incisa*), Neesberry (*Achras Sapota*), Bilberry (*Vaccinium meridionale*), Strawberry (*Fragaria vesca*), Star Apple (*Chrysophyllum Cainito*), Guava (*Psidium Guava*), Pomme d'or (*Passiflora laurifolia*), Granadilla (*Passiflora macrocarpa*), Nutmeg (*Myristica fragrams*), Otaheite Apple (*Eugenia malaccensis*), Rose Apple (*Eugenia Jambos*), Otaheite Gooseberry (*Cicca disticha*), Cashew (*Anacardium occidentale*), Grapes (*Vitis vinifera*), Cherimoyer (*Anona Cherimolia*), Sour Sop (*Anona muricata*), Custard Apple (*Anona reticulata*), Sweet Sop (*Anona squamosa*), Genip (*Melicocca bijuga*), Tree Tomato (*Cyphomandra betacea*).

Cocoa-nut (*Cocus nucifera*).—This is placed first on the list on account of its being a fruit which is likely to become in the future of more permanent value than any other, (1) on account of its keeping qualities, (2) for its economic value, (3) for certainty of crop, (4) for permanence of crop, (5) by reason of its requiring little or no cultivation, and (6) by its being adapted to many kinds of soil.

Banana (*Musa sapientum*).—Obtainable throughout the year, but most plentiful during August and following months. Supply good, except after hurricanes; cultivation might be largely extended.

Orange (*Citrus Aurantuim*).—In full season during the closing months of the year. Supply very good, capable of being largely extended.

Pine-apple (*Ananas sativa*).—In season June, July, and August in large quantities; all the year round in fair numbers. Could be grown in large quantities if demand arose.

Lime (*Citrus Medica*, var. *acida*).—In season all the year round. If a paying demand arose the supply could in three or four years be made unlimited.

French Lime (*Citrus Medica*, var. *Limetta*).—This possesses more juice; is larger, with skin resembling an orange; it is a very fine fruit. The supply is small, but worthy of extensive cultivation.

Mango (*Mangifera indica*).—Throughout the island the supply is now practically unlimited, but were an export demand to arise better varieties would be planted and the value increased. In season June, August.

Citron (*Citrus Medica*).—Supply small all the year round. Capable of being extensively grown at lower elevations of excellent quality.

Lemon (*Citrus Medica*, var. *Limonum*).—Supply small, but of excellent quality ; could be extensively grown.

Shaddock (*Citrus decumana*).—*See* Lemon.

Avocado Pear (*Persea gratissima*).—Supply very good. In season from June to September at different elevations. Supply could be very largely extended in a few years.

Bread Fruit (*Artocarpus incisa*).—Supply small comparatively, except in moist districts ; in season during most months of the year. If cooked by baking will keep well for two or three weeks.

Neesberry (*Achras Sapota*).—One of the most delicately flavoured and wholesome fruits grown. Gathered when "full," it will stand transport well. In season June to November.

Bilberry (*Vaccinium meridionale*).—A wild mountain fruit which could be readily cultivated ; makes a fine coloured natural jelly, a good wine, and is excellent for tarts. June and August.

Strawberry (*Fragaria vesca*).—A small variety resembling the Alpine species. In season on the mountains at 4,000 feet during nine months of the year, wild.

Star Apple (*Chrysophyllum Cainito*).—In season June to September. A fruit difficult to transport.

Guava (*Psidium Guava*).—Supply limited. Wild ; no good varieties cultivated though present. June and July.

Pome d'or (*Passiflora laurifolia*) and Granadilla (*P. macrocarpa*).—Could be cultivated in quantities for export. July, September.

Nutmeg (*Myristica fragrans*).—Mentioned here for sake of its pericarp or outer fleshy envelope which is succulent and possesses a fine mild spicy flavour ; makes an excellent and rare preserve, which only waits to become known to encourage a large demand.

Otaheite Apple (*Eugenia malaccensis*) and Rose Apple (*Eugenia Jambos*).—Make excellent preserves, and are in season from June to October. They possess a flavour which reminds of the smell of rose, the latter especially.

Otaheite Gooseberry (*Cicca disticha*).—An acid fruit. Might be bottled as gooseberries.

Cashew (*Anacardium occidentale*).—Makes an excellent preserve ; will not stand transport. Nuts, when roasted, are a choice dish for dessert.

Grapes (*Vitis vinifera*).—Grown in small quantities in the neighbourhood of Kingston, chiefly the Muscat varieties, but never likely to become a reliable crop, all the year round.

Cherimoyer (*Anona Cherimolia*).—A mountain fruit of great delicacy, but difficult to transport. July to September.

Sour Sop (*Anona muricata*), Custard Apple (*A. reticulata*), Sweet Sop (*A. squamosa*), and Genip (*Melicocca bijuga*).—Tropical fruits of ordinary value. June to October.

Tree Tomato (*Cyphomandra betacea*).—A tree bearing a fruit of excellent quality, which when preserved, somewhat resembles in colour and flavour the Apricot of Europe. Will only grow at elevation of 3,000 ft. and upwards in a temperature of 63° mean annual. The tree fruits all the year round ; is easily cultivated, and the supply could be increased to any extent in two or three years.

Of the fruits most capable of being produced in larger quantities the first 14 mentioned are most deserving of notice, for they could be extended to an enormous degree if proper facilities were afforded for placing them in suitable markets. The production of the other fruits mentioned could be increased to a very large degree if any profitable demand were to arise.

The steps necessary to develop the fruit trade are :—

1. Suitable and speedy transport.

2. Certain markets.

3. The institution of a system of brands at port of export so that fruit of a certain brand should be of uniform quality; in a similar manner to the governmental inspection of fish stuffs in the province of Nova Scotia, which does not permit an inferior article to be exported.

4. A better system of packing, methods for which might be introduced under Government control for a time to show cultivators that higher prices would surely accrue from well-packed fruit.

5. To introduce a syndicate for packing, delivery, and sale of fruit produce in the best markets, instead of trusting to brokers and irresponsible agents.

6. Telegraphic communication from responsible agents to enable sellers to place their produce at ports where there is the best demand from time to time.

7. And not least, money at easy rates to assist cultivators or an agricultural loan bank.

As to preserved fruits, the local methods hitherto in vogue are too expensive. What is required is to institute the modern English and American methods, which should be done by someone conversant with the extensive plant required in a preserved fruit factory. The price of locally preserved fruits is prohibitory to their extensive sale, and as a rule the taste of buyers is not consulted. An article suitable for the West Indies does not as a rule suit the European palate.

The quality of Pine-apples, Bananas, Oranges, Lemons, Mangoes, and Neesberries grown in Jamaica is of such a high character, that if suitable transport were provided they would obtain a ready sale in almost any market in their fresh state.

Bahama Islands.

The principal fruits of the Bahamas are Pine Apple, Sweet Orange, Banana, Grape Fruit,* Cocoa-nut, Plantain, Limes, Mango, Sapodilla, Tomato, Water-melon, Pumpkin, Alligator or Avocado Pear, Guava, Tamarind, Lemon, Sour or Seville Orange, Shaddock, Sour Sop, Sugar Apple, Ground or Pea-nut, Mammee, Cucumber, Rose Apple, Bread Fruit, Egg Plant, Cashew Nut.

The Pine Apple is obtainable from the latter part of May to end of July. Crop amounts to about 6,000,000 fruit. The wholesale local prices are 2*s.* per dozen for the first cuttings, or pick of the fields, 1*s.* 3*d.* to 1*s.* 6*d.* per dozen for the second cuttings, and 9*d.* to 1*s.* per dozen for the third cuttings.

The Sweet Orange, Grape Fruit, Lime, Lemon, Shaddock, and Sour Orange are in season from October to January. The Sweet Orange yield is fully 4,000,000. The wholesale local price is 1*l.* per thousand. The Grape Fruit Crop amounts to about 150,000. Wholesale local price 2*s.* per hundred. Of the Lime, Lemon, and Sour Orange no estimate can be given. Only a small quantity of each is available. At the present time they are grown chiefly for local consumption. The wholesale prices are respectively 9*d.* to 1*s.* per hundred, 15*s.* per thousand, and 10*s.* per thousand. The cultivation of the Shaddock having materially

---

* A variety of the Shaddock or the Pumelow.

declined within the past 15 years, the crop does not now amount to more than 4,000 to 5,000 fruit. The wholesale price is 4*s.* per hundred.

The Banana, Plantain, and Cocoa-nut can be obtained throughout the year. The annual yield of the Banana must be fully 400,000 bunches, by far the greater part of which is locally consumed. The quantity available for export at any one time does not exceed more than 2,000 bunches, and these would have to be collected at different points. Wholesale price from 1*s.* to 2*s.* 6*d.* per bunch.

The Plantain is extensively grown, but being an important article of food, nearly the entire crop is consumed in the Colony. The annual yield is nearly equal to that of the Banana. The quantity available for export, however, is much less, and does not exceed at any one time more than 300 to 400 bunches. Wholesale price is from 1*s.* 6*d.* to 4*s.* per bunch.

The Cocoa-nut is also extensively consumed at home. The annual crop is about 1,000,000 nuts, of which from 8,000 to 10,000 can be obtained any month for export. Wholesale price 4*l.* per thousand. In a short period the crop of this fruit ought to be double that of the present time. A few years ago large numbers of trees were planted throughout the Colony, which will soon commence to bear.

The Tomato is obtainable from December to March. It is raised both for home consumption and for export. The quantity annually exported is about 2,000 bushels. Wholesale price averages 4*s.* per bushel.

The Mango is in season from June to August. No reliable estimate of the extent of the crop can be given. It is never less, however, than 1,000,000 fruit, nearly all of which are locally consumed. Owing to the rapid ripening and decay of this fruit after being plucked, it is almost impossible to export it with any prospect of success. It will not stand a sea-voyage of over a few days' duration. The foreign trade is therefore exceedingly small, and is almost entirely confined to the near port of Key West.

The above remarks also apply to the Avocado Pear, the Sapodilla, the Sour Sop, and the Sugar Apple.

The Avocado Pear is obtained in August, September, and October. Wholesale prices 4*s.* to 6*s.* per hundred.

The Sapodilla, first crop, is in season in February and March, and the second crop in August and September. The tree grows without cultivation and in the greatest abundance. The annual yield is immense, being several millions, only a proportion of which is utilised. Wholesale price 9*d.* per hundred.

The Sugar Apple is not available for export, and the Sour Sop in a limited quantity only (not over 1,000). The wholesale price of the latter is about 15*s.* per hundred.

The Water Melon is obtainable in quantity for export from May to September. The crop is about 10,000 only, about one-third of which is exported. Wholesale price averages 1*l.* 5*s.* per hundred.

The Pumpkin can be obtained throughout the year, but principally during the summer and autumn months. Annual yield about the same as that of the Water Melon. Wholesale price also about the same.

The Guava is in season from August to October. Crop large, and is almost entirely used in the manufacture of preserves. There is no foreign trade in the raw fruit. Wholesale price about 2*s.* per bushel.

In the other fruits enumerated, there is so little trade at present that they are unworthy of special reference in the replies to query 2. They are included in the list of important fruits only to show that they can be and are cultivated in the Colony, and that they only require the opening-up of markets for their profitable sale to make them become important articles of export.

BAHAMAS FRUITS exported in a FRESH STATE in 1886.

Name.	Destination.	Quantity.	Value.
			£
Pine Apples	United States	388,800 doz.	34,185
Do.	United Kingdom	18,865 „	2,810
Sweet Oranges	United States	3,198,196	4,031
Bananas	„ „	10,930 bunches	434
Grape Fruit	„ „	67,696	80
Do.	United Kingdom	34,760	60
Cocoa-nuts	United States	30,533	115
Plantains	„ „	76 bunches	4
Limes	„ „	133,600	62
Mangoes	„ „	64,000	41
Sapodillas	„ „	131,600	37
Tomatoes	„ „	8,329 crates	34
Water Melons	„ „	3,544	34
Pumpkins	„ „	4,935	33
Avocado Pears	„ „	7,900	10
Tamarinds	„ „	4 bbls.	1
Lemons	„ „	4,850	3
Sour or Seville Oranges	„ „	2,700	1
Shaddocks	„ „	218	3
Sour sops	„ „	800	6
Mammees	„ „	120	1

BAHAMAS FRUITS exported in a PRESERVED STATE in 1886.

Name.	Destination.	Quantity.	Value.
			£
Pine Apples	United States	23,686 cases	5,534
Do.	United Kingdom	50 „	10
Pine-Apple Juice	Uniled States	31 bbls. „	2
Guavas	„ „	113 cases	35
Do.	United Kingdom	75 „	30
Sapodillas	United States	92 „	37
Tamarinds	„ „	99 „	25

With the exception of the Pine Apple, all of the fruits mentioned are capable of being produced in much larger quantities than at present. The Pine Apple will not grow throughout the Colony. It requires special soils and favourable localities, which are found on only a few of the islands. The bulk of the crop is raised on the Islands of Abaco, Eleuthera, and Cat Island. The land adapted to its cultivation is now nearly all utilised. It is not at all probable, therefore, that the production of this fruit can be increased.

Owing to the contiguity of the Bahama Islands to the United States of America, that country almost monopolises the trade in both fresh and preserved fruits. The mother country is too far away to admit of any important and profitable fruit trade being developed with it. The

only fresh fruits which can be exported to the latter with any prospect of success are the Pine Apple, the Grape Fruit, and the Shaddock, and these only in limited quantities. No others will stand the long sea-voyage between the islands of the Colony and the port of London. To the markets of the United States, therefore, these islands have principally to look for any further development of their fruit trade.

The steps necessary to be taken to secure this object are :—

(1.) The establishment of telegraphic communication. Beside Florida and Southern California, these islands have to compete with Cuba, Jamaica, Porto Rico, and other West Indian Islands, all of which have cable connexion with the United States. So far as position is concerned, the Colony possesses a decided advantage over its West Indian competitors in the fact that it is nearer to the market of demand. This advantage, however, is entirely lost by the fact that it does not possess the facilities which its competitors enjoy, the most important of which is cable connexion. In the fruit trade especially it is highly important that a market of supply be in telegraphic communication with its markets of demand. The extent of supply, the extent of demand, and the ruling prices should be matters of daily information to the shippers from the Colony, while on the other hand the consignees at the ports of delivery should also be posted as to the nature and extent of the cargoes which are being sent to them for sale. Fruit being a highly perishable article, has to be rapidly handled and sold after reaching its destination. Before its arrival all arrangements for its sale should be made. This course is adopted in the case of shipments from Cuba, Jamaica, and Porto Rico. The necessary information is conveyed from the shipper to the consignee by cable. Unfortunately this course cannot be taken in the Bahamas, and the dealers in the Colony are handicapped, and labour under a great disadvantage.

(2.) Increased steam facilities for shipping the fruit.

During the summer and autumn, when the principal fruits are in season, a steamer of one line makes a trip once in every four weeks with the port of New York. This is the only regular and reliable steam connexion. There is no competition. The results are, that only a small proportion of the fruit crops can be shipped by steamer, the bulk being necessarily forwarded by sailing vessels; and secondly, excessive freights on all shipments made by the steamer. In the matter of steam facilities the Colony also labours under great disadvantages as compared with those possessed by the West Indian Islands before mentioned.

(3.) The removal of the high protective duties on Oranges and other raw fruits, and on preserved fruits, in the United States.

The imposition of these duties is, first, for the protection of the orange growers of Florida and Southern California; and second, for the protection of the "packers" of preserved Pine Apples in the United States. Oranges being extensively cultivated in the States alluded to, are heavily taxed. Pine Apples not being raised to any great extent, are admitted duty free in the raw state, but are heavily taxed when preserved. Pine Apples were only placed on the free list by the United States Government a few years ago, and only after the establishment of preserving factories in these islands. The effect of this policy is to afford double protection to the American packer. The remission of the duty has enabled him to buy the raw fruit at a much lower rate than heretofore, and he has also to help him the high protective duty imposed on the preserved fruits imported into the United State from this Colony. The placing of Pine Apples on the free list by the United States Government without its making any reductions in the duties on preserved fruits has crippled the preserving industries of the Colony. Some of the factories

have suspended operations, and those in existence are not doing a very large trade. The remission of the duties referred to would therefore prove a great help to the fruit trade of these islands.

(4.) Increased demand.

The supply of tropical fruits imported into the United States from this and other places is fully, if not more than equal, to the present existing demand, particularly in the matter of Pine Apples and Oranges. For the past few years the cultivators of Pine Apples in these islands have been unable to dispose of the whole of their crops. Until the demand increases, it would be unwise to extend the cultivation of Pine Apples at least. Increased demand is a question of time, however, and only can be expected to keep pace with, or follow, increased population in the United States.

(5.) Improved methods of cultivation, so as to increase the yield and improve the quality of the fruit. It is a well-known fact that the fruits exported from this Colony do not rate with those from other places. The Pine Apples are surpassed by those from Cuba, Jamaica, and Porto Rico, and the Oranges by those from Florida. Within the past few years there has been a marked deterioration in the size and flavour of the Bahama Pine Apple, owing, it is supposed, to the fact that all of the best land has already been cultivated. There can be no doubt that the fruit can be improved by higher cultivation. Manures and fertilizers should be more generally and freely used. The fields and orchards should be kept clear of weeds. The Orange and other fruit trees should be regularly and carefully pruned and scraped. These important matters are generally neglected in the Bahamas, and the result is that the trees and plants are usually in a weak and sickly condition. They do not possess the necessary vitality to withstand long periods of drought, and easily become the prey of the scale and other insects. The exportation of all fertilizers from the Colony ought to be prohibited, for every ounce of them which nature has bestowed upon us is required and ought to be generally used for our own purposes.

(6.) The exercise of more care in the packing of the fruit and in its sorting and grading, the latter seldom attended to.

As regards suggestions for the improvement of the fruit industry in the Bahamas it might be mentioned that the cuttings from the Pine Apples prepared and preserved at the Pine Apple Factories could be utilized in the manufacture of Wine, Spirits, or Vinegar.

Oil of Orange and Oil of Lemon could be extracted from the skin of these fruits. Rose flavouring or extract could be obtained from the Rose Apple. Saccharine matter could be extracted from the Sapodilla. This fruit also yields a rich and delicately flavoured syrup. Valuable fibres can be obtained from the leaf or stalk of the Pine Apple plant, and also from the Banana and Plantain trees, also from the Cocoa-nut. Perfumery could be extracted from Orange and other blossoms. Guavas could be more largely utilized in the manufacture of jellies and other preserves.

Barbados.

The chief fruits grown in Barbados are Bananas, Oranges, Shaddocks, Tamarinds, Mangoes, Star Apples, Golden Apples, Avocado Pears, Guavas, Grapes, Cashews, Sapodillas, Pine Apples, Chili Plums, Pomegranates, Mammee Apples, and Papaws.

2. (*a.*) What little fruit there is is chiefly obtainable from September to March. (*b.*) The only fruit available for export are Tamarinds.

(*c.*) The wholesale price of Tamarinds varies from three shillings to five shillings per hundred pounds.

3. (*a.*) No fruit is exported in a fresh state. (*b.*) Tamarinds are exported preserved in treacle; the value of which for five years ending 31st December 1885 is as follows, viz.:—

	£	*s.*	*d.*
1881 - - - -	1,307	10	0
1882 - - - -	1,122	7	6
1883 - - - -	1,139	10	0
1885 - - - -	2,407	7	6

(*c.*) All of the above was shipped to Great Britain with the exception of small quantities sent to British North America in 1882, 1884, and 1885, the value of which amounted in the aggregate to one hundred and forty-three pounds ten shillings.

4. All the fruits mentioned above are capable of being produced in much larger quantities than at present, but land is considered to be by most landowners far too valuable for such a purpose as growing fruit.

5. (*a.*) The following fruits are imported in a fresh state, chiefly from the United States of America, viz.: Apples, Pears, and Peaches; (*b.*) In a preserved state: Apples, Pears, Peaches, Plums, Apricots, Greengages, Raspberries, Gooseberries, Damsons, Currants, and Cherries. (*c.*) There is no way at present by which the quantity and value can be ascertained.

6. As there is no prospect of Barbados ever becoming a fruit-producing country to any extent there is hardly need for further remarks.

St Lucia.

We are indebted to Mr. R. P. Cropper, Secretary of the Agricultural Society, for the following report on the fruit industry of St. Lucia:—

Hitherto sugar has occupied everybody's attention. But while a new departure is manifesty and urgently necessary, nobody has hit upon what ought to be done. The call for tropical fruits for the British market comes opportunely, and I should suggest that one or two enterprising persons or firms, local or English, should make trial shipments to England on a moderate scale. Failure can scarcely be anticipated, especially in the matter of preserves, and demand might fairly be expected to increase. As soon as it is found that it is profitable to export preserves and fruit on a large scale, people will wake up to the advantages of the new industry, and fruit cultivation and preserve making will be greatly extended. I add, in reply to question put, that all our fruits are capable of being produced in much larger quantities than at present, but the growers of fruit and makers of preserves have not the means of making shipments at their own risk. A few planters in better circumstances show a disposition to engage in the cultivation of spices and fruits, but the stimulant of actual, not speculative, demand is absent. When positive orders are given, the response will be certain and large.

From St. Lucia, apart from the staples:—sugar, rum, and cacao, comparatively little fruit is exported. Mangoes are exceedingly abundant, and hundreds of barrels, perhaps I may safely say thousands of barrels, are shipped in the season to Barbados. A fairly large exportation goes on in Bananas, Oranges, and Pine Apples to the same place. Other fruits

are shipped in very small quantities. A short time ago Bananas were in considerable demand for St. Thomas, but the call has fallen off very much. Our other neighbours grow all the fruits that we do and supply their own wants. There is consequently no demand for our fruits, and no motive for growing more than we need for our own immediate consumption.

There can scarcely be said to be any export trade in preserves beyond boxes of succades for presents.

Practically there are no imports of fruits, except a few barrels of Apples in the fall of the year. But jams and jellies, candied fruit, Raisins, Figs, &c., from England and France, are pretty largely consumed.

The seasons for fruits vary considerably, and the months named in the accompanying tables are not constant year after year. I have observed that some fruits can be bought not only over a longer term of months in St. Lucia than in the neighbouring islands but even in different months in different years. The months named in the tables indicate, generally, when the fruits begin to be abundant. Smaller quantities are procurable before and afterwards.

The prices of preserves given are such as would be taken if large orders had to be executed; and would probably fall lower if competition should arise. At present what are set down at 8*d.* a lb. are actually sold at 1*s.*, and the 1*s.* 3*d.* articles at 1*s.* 6*d.*

I make no attempt to indicate the quantities by figures. I do not think any estimate would be even approximately correct.

List of St. Lucia Fruits.

Local Names.	Seasons.	Values.	Quantities.
Avocado Pear	June	4*s.* per 100	Moderate.
Banana (2nd)	All the year	1*s.* 3*d.* a bunch	Large.
Bread Nuts	July	5*s.* 100 lbs.	Small.
Cashew Nuts	May, &c.	8*s.* „	Large.
Cocoa-nuts	All the year	7*s.* 100	Moderate.
Custard Apple	February	4*s.* „	Small.
Grape Fruit	November	3*s.* 6*d.* 100	Moderate.
Ground Nuts	December	——	——
Limes	June, &c.	4*d.* 100	Large.
Mammee Sapote	May, July	2*s.* „	Moderate.
Mangoes (1st)	June	4*d.* to 7*d.* 100	Very large.
Orange (3rd)	November	1*s.* 100	Moderate.
Pine Apple (4th)	June	13*s.* „	Small.
Pomegranate	September	3*s.* „	Moderate.
Sapodillas	March	2*s.* 6*d.* 100	Small.
Shaddocks	December	12*s.* 100	„
Sour Sop	October	6*s.* „	„
Sugar Apple	June	2*s.* „	Large.
Tamarind	April	2*s.* 6*d.* 100 lbs.	„
Water Lemon	May	2*s.* 100	Moderate.

The order of importance of the exports is Mangoes, Bananas, Oranges, Pine Apples. Of the others the exportation is scarcely appreciable, even to Barbados and some cannot bear a long voyage except under the frozen-air treatment. Ground nuts have almost gone out of cultivation. St. Vincent supplies nearly all that we eat. The probable value of fruits sent to Barbados is from 300*l.* to 400*l.* a year.

List of St. Lucia Preserves.

Local Names.	Seasons.	Values.	Quantities.
Bread Fruit blossom	June	8*d.* per lb.	Small.
Cacao	March	1*s.* 3*d.* per lb.	,,
Cashew Nuts	May, &c.	8*d.* ,,	Large.
Cherry (1)	June	1*s.* 3*d.* ,,	Small.
Citron	June	1*s.* 3*d.* ,,	Large.
Cocoa-nuts	All the year	8*d.* ,,	,,
Figs	June	8*d.* ,,	Small.
Ginger	March	1*s.* 3*d.* ,,	,,
Golden Apple	November to March	8*d.* ,,	,,
Gooseberry (2)	June	8*d.* ,,	Large.
Granadilla	All the year	1*s.* 3*d.* ,,	Small.
Guava	July	8*d.* ,,	Large.
Limes	June	1*s.* 3*d.* ,,	Small.
Mammee Sopote	May, &c.	8*d.* ,,	Large.
Nutmeg (pulp)	August	1*s.* 3*d.* ,,	Small.
Orange	November—March	8*d.* ,,	Large.
Papaw	All the year	8*d.* ,,	,,
Pine Apple	June	8*d.* ,,	,,
Plumrose (white) (3)	June	8*d.* ,,	Small.
Shaddock (Pith)	December	8*d.* ,,	,,
Sorrel (4)	December	8*d.* ,,	,,
Tamarind	January—June	1*s.* 3*d.* ,,	Large.
Tomato	May, &c.	1*s.* 3*d.* ,,	Small.

(1.) Malpighia punicifolia.
(2.) Cicca disticha.
(3.) Eugenia Jambos.
(4.) Hibiscus Sabdariffa.

St. Vincent.

Mr. Huggins has prepared the following report on the fruits of St. Vincent :—

The principal kinds of fruit produced in St. Vincent in order of quantities are the Banana, in several varieties, the Mango, many varieties, the Pine Apple, the Guava, the Orange, the Avocado Pear, the Mammee Sapote, Jamaica Plums (*Spondias purpurea*), Limes, the Java Plum (*Eugenia Jambolana*), the Golden Apple (*Spondias dulcis*), the Sugar Apple (*Anona squamosa*), the Sapodilla (*Achras Sapota*). There are several other sorts of less importance as the Malay Apple, Papaw, Granadilla, Bread Nut, and the Pomme Rose (*Eugenia Jambos*).

The Banana is ripe throughout the year, Mangoes from April to October, Pine Apples June to August, Guavas April to October, and November, Mammee Sapota May to July; the others are ripe at various times in the year. The quantities of fruit available for export from St. Vincent are very small; there is no regular cultivation of any sort, and it takes nearly all the present production to supply the local wants. The prices vary considerably and depend on the abundance or otherwise of the crops, but there is no true wholesale market, and (except in the case of Mangoes, which are bought in quantity from the growers at home), the fruit is all brought in from the country in small lots by the producers; Oranges are retailed when abundant at four fruits for one halfpenny; when purchased from the growers the price is about half of the above. Bananas are retailed at from three to seven

fruits for 1*s.* 2*d.*, according to the kind or quantity. Mangoes are sold at about four to eight for one halfpenny, but prime fruits are very seldom put on the market. The pine apple is sold at from 2*d.* to 4*d.* each. The prices of these fruits are about half of the above when purchased from the growers.

There are no means of arriving at the value of the fresh fruit exported from this Colony, as no separate account is kept of them at the Custom House, no duty being paid upon them. But Mangoes, Bananas, and Avocado Pears are exported in small quantities to the neighbouring Colonies of Barbados and Trinidad. Other fruits are occasionally sent to these places, but in no appreciable quantities. A blight some years back seized upon and killed nearly all our Oranges and Cocoa-nuts, and it is only of late that Oranges have again sprung up. Dried fruits are not exported, and the value of confectionery is almost *nil.*

There is great room for the extension of the cultivation of all kinds of fruit grown here—the local wants extend as opportunity for gratification occurs, and export is in its infancy. The nearest possible market of any magnitude is that of the United States, but that is more readily supplied from Jamaica, and the other larger Colonies, who have already direct, rapid, and regular communication with New York and other ports.

Trinidad is already starting the cultivation of the Banana for the American market; and could our people be induced to see that money is in it, they would probably make the same attempt, but to do this we *must* have regular direct communication, and in the present condition of this essential to success I am afraid there is little chance of doing much more than at present in the fruit trade. If those who have the control of the fruit steamers running to Trinidad could be induced to make it known that should there be a prospect of a sufficient supply being obtainable they would include this island in their operations, I have no doubt that cultivators would be stimulated and a very large increase of fruit be grown, and in view of this it is recommended that the local government should take steps to ascertain the possibility of obtaining the requisite communication with the United States, America, and, if so, to utilize the scheme just started of peasantry proprietors, and wherever practicable to cause them to include the growth of the proper kinds of fruit amongst their productions, and more especially so on the leeward coast where carriage is easy by boat.

There are no fruits imported of any value in a fresh state. Owing to the blight which attacked and killed our Cocoa-nut trees, we are in a great measure dependent on the neighbouring Colonies for our supply of nuts, which are imported dry. A small quantity of dried and preserved fruit is procured from England, these are Raisins, Currants, Almonds, &c., but the total value is insignificant. There are no other remarks or observations regarding the fruits of this Colony other than apply generally to the fruit of all tropical lands.

Grenada.

Information respecting the fruits of Grenada has been prepared by Mr. W. R. Elliott, Curator of the recently-established Botanic Gardens in that island.

The principal fruits grown at present at Granada are :—

GRENADA FRUITS.

Name of principal Fruits.	When in Season.	Local Prices.
Oranges	December to May	10*d.* to 1*s.* per 100.
Pine Apple	February to April	2*s.* to 6*s.* per dozen.
Mango	June to August	6*d.* to 1*s.* per 100.
Sapodilla	December to April	1*s.* per 100.
Banana	Whole year	6*d.* to 1*s.* per bunch.
Plantains	Whole year	6*d.* to 1*s.* per bunch.
Limes	October to December	3*d.* per 100.
Guava	October to December	3*d.* per 100.
Avocado Pear	July to September	1*s.* to Is. 6*d.* per 100.

In the above table only such fruits as are suitable for export to home markets have been given. There are numerous other fruits more adapted for export to the neighbouring islands, the following being among the most important:—Bread Fruit (*Artocarpus incisa*), Sweet Sop (*Anona squamosa*), Sugar Apple (*Anona reticulata*), Cashew (*Anacardium occidentale*), Water Lemon (*Passiflora laurifolia*), Rose Apple (*Eugenia Jambos*), Granadilla (*Passiflora quadrangularis*), Star Apple (*Chrysophyllum Cainito*).

It is almost impossible to judge of the amount of fruit available for export. There are at present enormous quantities of fruits allowed to rot owing to there not being sufficient demand for them.

The whole of the fruits mentioned above, particularly Oranges, Pine-apples, Mangoes, and Sapodillas, are capable of being produced in much larger quantities than at present. To develop a fruit trade in Grenada we require a *market* for our fruit, and *regular* and *reliable* means of shipping it to that market. Further it would be advisable to establish a central receiving house, say in St. George's, where the fruit could be properly selected and packed for the home market. This could be established by any enterprising local firm, or even by the Government.

With these inducements local men would pay attention to fruit cultivation, and an abundant supply of fruit could be shipped from here all the year round. Pamphlets could also be distributed throughout the country giving hints as to the best modes of cultivation, &c.

The importation of fruit into this Colony is confined almost entirely to crystallized fruits and English fruits in syrups; occasionally a few Apples find their way here from America, but the quantity is very small. The value of preserved fruits imported was, in 1880, 180*l.* 18*s.* 10*d.*, and, in 1881, 50*l.* 5*s.* 9*d.*; since this no record appears in the Blue Book.

I do not think there are any very special points of interest connected with the fruits of the Colony, excepting the enormous variety grown here and the general good quality of the fruit produced. Sweet Oranges, Tangerine Oranges, and Mandarin Oranges are of very good quality, and the two latter varieties would find a ready sale in the English market.

I would venture to draw attention to the peculiar adaptability of the country to fruit cultivation. There are hundreds of acres of land unsuited to cocoa on which fruit could be grown abundantly and profitably.

Tobago.

The following is a list of the chief fruits grown in Tobago in the order of their importance or extent:—

Cocoa-nut	*Cocos nucifera.*
Lime	*Citrus Medica*, var. *acida.*
Mango	*Mangifera indica.*
Tamarind	*Tamarindus indica.*
Guava	*Psidium Guava.*
Pine Apple	*Ananas sativa.*
Bananas	*Musa sapientum.*
Sapodilla	*Achras Sapota.*
Orange, Sweet	*Citrus Aurantium.*
Shaddock	*Citrus decumana.*
Lemon	*Citrus Medica*, var. *Limonum.*
Seville Orange	*Citrus Aurantium.*
Citron	*Citrus Medica.*
Forbidden Fruit	*Citrus decumama*, var.
Grape Fruit	„ „ „
Sugar Apple	*Anona squamosa.*
Custard Apple	*Anona reticulata.*
Sour Sop	*Anona muricata.*
Jamaica Plum	*Spondias purpurea.*
Hog Plum	*Spondias lutea.*
Chili Plum	*Spondias* sp.
Governor Plum	*Chrysophyllum oliviforme.*
Avocado Pear	*Persea gratissima.*
Cherry	*Malpighia punicifolia.*
Otaheite Gooseberry	*Cicca disticha.*
Star Apple	*Chrysophyllum Cainito.*
Mammee Sapota	*Lucuma mammosa.*
Cashew	*Anacardium occidentale.*
Pomegranate	*Punica Granatum.*
Almond	*Terminalia Catappa.*
Granadilla	*Passiflora macrocarpa.*
Water Lemon	*Passiflora laurifolia.*
Genip	*Melicocca bijuga.*
Tomato	*Lycopersicum esculentum.*
Grape	*Vitis vinifera.*
Seaside Grape	*Coccoloba uvifera.*
Bread Fruit	*Artocarpus incisa.*
Jack Fruit	„ *integrifolia.*
Golden Apple	*Spondias lutea.*
Ground Nut	*Arachis hypogæa.*
Akee	*Blighia sapida.*
Water Melon	*Citrullus vulgaris.*

Such fruits as would be suitable for export mostly ripen from May to August. Oranges about Christmas. The Cocoa-nut is the only one on the list which may be considered an export from Tobago. The average value may be quoted at 10 dollars a thousand, and the average export at 750,000 per annum. Limes, or rather the expressed juice, has been exported to some extent; but the low price in home market does not encourage expenditure of capital in that direction. Mangoes are sent during the season to Barbados, where they meet with ready sale.

Pine Apples grow readily, and a few have been sent home preserved in tins. Tamarinds in syrup are sent home in small quantities every crop. Bananas also grow readily all over the island, and some have been sent to Trinidad, and other places.

All the principal fruits, as Mangoes, Pine Apples, Sapodilla, Bananas, Oranges, &c., &c., ought to be produced in much larger quantities than at present, but up to the present time there has been no available market for them. The first thing that is wanted is a quick and cheap transport to a market by means that can be depended on for punctuality and despatch, and improved means of communication locally from one part of the island to another. It is said that in Jamaica arrangements have been made by which Bananas can be put on board the steamers for America, from the out-bays, at 1*d.* per bunch. Cable communication would be necessary, to afford due notice of the approach of the fruit-carrying steamers, thus permitting the picking to be delayed to the latest possible moment, so that the fruit might be shipped in the freshest condition.

The only fruits imported are American tinned and English bottled tart fruits, and these only in small quantities.

A large variety of fruits can be produced in the Colony of the finest quality, if due attention be paid to cultivation. Land is very cheap, and much of it is now in the market. Capital is required. A company formed with the view of fruit growing and tinning would be sure of success.

The above Report was prepared by a Committee of the Tobago Agricultural Society, consisting of Messrs. John McKillop, Edward Keens, and D. McGillivray.

In a despatch from the Administrator of Tobago to the Governor-in-Chief of the Windward Islands, dated 26th September 1887, it is stated that "Tobago can produce fruit as fine as any other island, but its "geographical position at the end of the group, outside the circle, has "always been a bar to its advancement. Fruit for New York from "Tobago would have to compete against fruit picked some 10 days "later in the more northern islands."

Trinidad.

The following particulars respecting the fruits of Trinidad was compiled last year by Mr. J. F. A. Redhead, Acting Superintendent of the Botanic Gardens :—

Local Names.	Months during which they are obtainable.	Wholesale Prices Locally.
Orange	October to January	1*s.* a hundred.
„ Mandarin	„ „	„ „
„ Tangerin	„ „	„ „
„ Portugal	„ „	„ „
Forbidden Fruit	„ „	1*s.* 6*d.* „
Shaddock	„ „	3*d.* to 5*d.* each.
Pine Apple	April to June	3*d.* to 1*s.* each.
Sapodilla	February to July	2*s.* a hundred.
Mango	June to July	1*s.* 4*d.* a hundred.
Avocado Pear	July to November	4*s.* „
Granadilla	October to November	3*d.* to 6*d.* each.
Water Lemon	June and July	1*s.* 4*d.* a hundred.
Water Melon	June to August	3*d.* to 5*d.* each.
Banana	All the year	According to quality, say 1*s.* 6*d.* a hundred.
Tamarind	January to March	4*s.* to 16*s.* a tree crop.
Mammee Apple	March to May	2*s.* a hundred.
Guava	August to November	About 6*d.* a hundred.

As regards the steps necessary to start and develope a fruit trade in Trinidad, the most important is good communication with European and American markets by means of vessels fitted especially for carrying fruit. Information is necessary as regards the prices which fruits are likely to realise in foreign markets, and as regards the best manner of packing them, the seasons at which they would command the highest prices, and the quantities likely to be required at each shipment.

Since the above information was received, Mr. Hart has prepared a pamphlet on "The Banana Trade" at Trinidad, in which he has fully discussed the steps necessary to establish a fruit industry in the island.

British Guiana.

The following report on the fruit productions and resources of British Guiana has been prepared by Mr. G. S. Jenman, Government Botanist and Superintendent of the Botanical Gardens at Georgetown :—

Prefatory Remarks.

The export of fruit from the Colony is so small that it is only worth considering as evidence that on a much larger scale a profitable export trade in fruit might be created if the necessary arrangements were made for the extension of the trade. With this exception it may be said that fruit is only grown to meet the local demand, and the extent of this demand is so well known to growers that only under exceptional circumstances of depression in the sugar industry, or seasons that affect unusually favourably the production of certain fruits, is there ever an excess over the demand. I will review each of the principal fruits separately presently, but it may be said generally here that were there a larger permanent demand, it is very probable, with little effort, the supply would increase to the same extent, the necessary time being allowed for the growth. In the country districts the majority of families have the opportunity of obtaining the common fruits, such as Plantains, Bananas, and Mangoes; but in districts where the population is sparse and widely scattered, this is not generally accomplished easily, and long distances have often, where the people are not cultivating on their own account, to be traversed to the localities where roadside markets are made on certain days, usually only Saturday, to obtain supplies. The towns and large villages would, too, probably consume a larger quantity of fruit, were it made more easily available by a good system of distribution. There is a small importation of fruit from the West Indies with the ground-provisions that are imported, but it is inconsiderable. At the height of the apple season this fruit is imported to the extent that it is as common in Georgetown as, perhaps, any of the native fruits are in their season, if indeed it is not more abundant than several of them, judging from what one sees of it in the market streets; but its greater powers of keeping may probably, however, deceive one as to the quantity actually imported. Of such importation no separate record is kept at the Customs, all being there included under the head that covers small items generally of "free unenumerated goods." All this, however, shows that the local supply of fruit might still be increased, under favouring circumstances, for its distribution for local use. A considerable portion of the fruit brought from the country districts to Georgetown market for sale is taken by the shipping in the port.

List of the FRUITS cultivated in BRITISH GUIANA, arranged in the sequence of the Quantity grown for local consumption or export.

Common Name.	Scientific Name.	Principal Season.	Amount available for Export.	Wholesale Price.*	Retail Price.*
Plantain	*Musa sapientum*	January to December	Small quantity	24 cents to 72 cents per bunch.	32 cents to 84 cents per bunch.
Banana	„ „	January to December	Small quantity	10 cents to 20 cents per bunch.	16 cents to 24 cents per bunch.
Mango	*Mangifera indica*	November to February	Varies with season	Varies with the crop	Varies with the crop.
Guava	*Psidium Guava*	June to October	Small quantity	12 cents to 24 cents per bushel.	2 cents for 6 to 24.
Orange	*Citrus Aurantium*	August to December	Hardly any at present	45 cents to 90 cents per 100.	50 cents to $100 per 100.
Cocoa-nut	*Cocos nucifera*	January to December	Considerable	$10 to $15 per thousand	2 cents to 3 cents each.
Pine Apple	*Ananas sativa*	March to August	Hardly any at present	2 cents to 16 cents each	6 cents to 36 cents each.
Star Apple	*Chrysophyllum Cainito*	October to December	None	4 cents to 8 cents per doz.	1 cent each.
Sapodilla	*Sapota Achras*	May to December	None	12 cents to 16 cents per dozen.	2 cents each.
Granadilla	*Passiflora quadrangularis.*	July to September	None	2 cents to 4 cents each	4 cents to 8 cents each.
Scimitoo	„ *laurifolia*	January to December	Hardly any	24 cents per bushel	1 cent for 6 to 12.
Sour Sop	*Anona muricata*	January to December	None	16 cents to 24 cents per dozen.	2 cent to 4 cents each.
Avocado Pear	*Persea gratissima*	July to December	None	24 cents to 48 cents per doz.	4 cents to 8 cents each.
Bell Apple	*Passiflora maliformis*	July to November	Hardly any	12 cents to 24 cents per bushel.	4 to 8 for 2 cents.
Cashew	*Anacardium occidentale*	July to December	Hardly any	12 to 24 for 2 cents.	6 to 12 for 2 cents.
Custard Apple	*Anona reticulate*	Spring and Summer months.	Hardly any	4 for 8 cents	2 to 3 for 8 cents.
Golden Apple	*Spondias dulcis*	September to December	Hardly any	6 to 12 for 8 cents.	4 to 6 for 8 cents.
Governor Plum	*Flacourtia Ramontchi*	February to June	None	Not sold	Not sold.
Hog Plum	*Spondias lutea*	November to March	Not worth exporting	2 to 3 doz. for 2 cents	2 dozen for 2 cents.
Jambolan	*Eugenia Jambolana*	January to March	None	Not sold	Not sold.
Papaw	*Carica Papaya*	January to December	Small quantity	2 to 4 for 2 cents	1 to 2 for 2 cents.
Souarri-nut	*Caryocar nucifera*	June to August	Small quantity	2 to 4 for 8 cents	2 for 8 cents.
Sweet Sop	*Anona squamosa*	Spring and Summer months.	Small quantity	2 to 4 for 8 cents	1 to 2 for 8 cents.
Tamarind	*Tamarindus indica*	October to December	Hardly any	1 to 2 doz. for 2 cents	12 for two cents.
Surinam Cherry	*Malpighia glabra*	January to July	Hardly any	Not sold	Not sold.
Acquero	*Astrocaryum Tucumoides*	September to December	No demand	8 cents to 16 cents a bunch.	1 dozen for 2 cents.
Awarra	„ *Tucuma*	September to December	No demand	8 cents to 16 cents a bunch	1 dozen for 2 cents.

* These prices fluctuate with the period of, and degree of prolificness of, the season, and can only be regarded as a rough guide.

The small exportation of fruit is confined almost entirely to Plantains and Bananas.

Other Fruits exported are of trifling quantity and average in value little over a hundred dollars a year.

Of *Preserved Fruit* exported the average value is not much over a thousand dollars.

Turning to imported *Fresh Fruit*, I have said there is no separate record kept of this at the Customs. From inquiries I have made of merchants in the trade it seems to about equal the value of the exported fruit. It does not exceed from four thousand to five thousand dollars a year.

The *Preserved Fruit* imported averages in annual value between six thousand and seven thousand dollars.

* * * * *

I append (Appendix B.) a paper entitled "Regarding an Export Fruit Trade," reprinted from the *Argosy* newspaper.* I have shown in that paper that fruit might be largely raised here for export, but before any considerable extension of cultivation takes place, cultivators must be assured of a market for the produce. Shippers are required to afford this market. The cultivators being, as a rule, members of the working classes, living from hand to mouth, they cannot arrange the shipping themselves. I have suggested that a company should be formed to undertake the business, or that Government should give a subsidy for a few years to vessels carrying fruit. If it were seriously taken up and judiciously managed, I believe a very important fruit trade might be established from the Colony, for which none of the British Western Tropical Colonies is in possession of better facilities.

Remarks on the Principal Fruits of Colony.

Plantains.—These being the principal article of food of the negro peasantry, their production comes next to sugar (though insignificant in relation) as one of the staple industries of the Colonies. They are gathered green before maturity, and used as a vegetable, boiled or roasted. Cut when full grown, but while still green, they are used by colonists roasted in ashes. At this period they have a soft mellow, somewhat cheese-like substance. If kept for a week or ten days in store when thus gathered they ripen and turn yellow, acquiring a fruity character. They are then prepared for table by baking in the oven, whole, the skins having first been removed, or are sliced, lengthwise, and fried. In this state they resemble ordinary baked apple, but are sweeter, with a much firmer substance. Were these qualities of this fruit known in temperate countries, I think a demand would arise for it, and it might be made an article of export from the Colony. For this purpose it would have the advantage of the greater hardness it possesses in handling over the Banana. The quantity of fruit produced and consumed in the country must be very great, but there is hardly any means of estimating it. The average number of bunches annually exported is about eight thousand, valued at one thousand three hundred dollars, which are sent to neighbouring countries.

Bananas.—The cultivation is almost confined to supplying the demand for local consumption, but it might be increased to any extent. Several varieties are grown, the smaller kinds, called Figs, being chiefly in demand among the better-to-do classes. The kind apparently in most favour with cultivators and the working classes being the dwarf Chinese; this produces large bunches and is one of the best in keeping,

* Not reproduced.

but in quality is not so good as several of the taller growing kinds. I am quite unable to estimate the quantity or value of that locally consumed. That exported I estimate at from 10,000 to 12,000 bunches a year, and in value from $2,000 to $2,500. For full information on the subject of this fruit as an article of export see the paper attached entitled "Regarding an Export Fruit Trade."

Mangoes.—There is no cultivation in the proper sense of the term of this fruit. From its first introduction to the Colony it was planted on the "Dams" of sugar estates, and the greater part of the trees now growing in the country occupy these situations; and the want of drainage prevents its spreading spontaneously. Fewer trees are in existence now than formerly, for an abundance of Mangoes tend to sustain idleness among the labouring classes; and partly as a consequence of this "fruit walks," as the avenues of fruit trees on the dams were called, are not kept upon many estates now. The Mango in Guiana fruits precariously, a very dry year yields usually a heavy crop, but in ordinary seasons the yield is light. At the former old settlements on the rivers very fine trees are in many places found, but they rarely fruit,—the present occupiers say only about once in seven years, and then only in an exceptionally dry season. This tendency is characteristic of the Mango in all countries to which my experience has extended. The kinds grown here are generally poor, and there is no first-class fruit among them. The Botanic Gardens are endeavouring to remedy this by propagating only good and first-class kinds by grafting (in-arching) and offering them for public sale at a cost to cover expenses. In good mango seasons all classes have an abundance of the fruit. At such times it has hardly any value in country districts where trees are plentiful, and after transport to town, is sold at from one dozen to two dozen for a penny. In less favourable seasons it sells at twice to four times this rate. None is exported. First-class fruit would be worth exporting, but a refrigerator would be required for its safe conveyance. No attempt, however, should be made to export the fruit now available, as its quality is so poor it would only prejudice the market. The difference between poor and good Mangoes is as great as that between crab-apples and the choicest cultivated kinds of that fruit.

Oranges.—Of this fruit there is hardly any real cultivation, nor are trees abundant. The soil and climate appear very favourable, and good crops are generally produced. Trees suffer from the orange scale pest, and individuals often succumb to its ravages. The kinds grown are not all of equal merit, but some are very good. The cultivation might be carried to an indefinite extent. There is no export, and small quantities are sometimes imported from the West Indies.

Limes.—These are not grown largely, but more than sufficient for local demand. In some places dams are planted, and there the fruit is allowed to a large extent to perish on the ground, as there is little demand for it in the local market, and the price realised does not pay carriage to town. A small quantity was exported on trial a short time ago to the United States, fresh, in barrels, upon which, compared to the quantity, there was considerable loss. Lime-trees seem to suffer much more from the orange scale than Orange-trees do, and many from time to time are killed from its attacks. Apart from this pest, the conditions here are favourable, and the cultivation might be multiplied indefinitely. Two or three varieties are grown, one or two of which are very fine fruit.

Pine Apples.—The land of the coast region, a stiff clay, is not suitable for the best growth of this plant. Still a good many fruit are grown on the dams of sugar estates and elsewhere. Some of the best of the

English kinds are among these. The sandy land of the interior, where, by the way, the Pine Apple is plentifully indigenous, is specially adapted to the cultivation. There the Indians grow this fruit more or less plentifully in their provision fields. The area of land, within reasonable distance of the ports of shipment, most thoroughly adapted for the culture of this fruit is very large. None is exported.

Guavas.—These are naturalised in pastures and other places, and consequently are not much cultivated. The greater part of the fruit wastes on the ground or is eaten by animals, but some is made into jelly for local use or for export. The entire quantity used is not however of much consideration. There are three or four varieties, all of which thrive freely on both the coast and interior lands, and might be multiplied indefinitely.

Avocado Pear.—This tree does not thrive so well here as in the West India Islands, and the fruit is, as a rule, expensive. Fine fruit is, however, produced in some places, but is chiefly consumed by the owners, and that which reaches the market is little in quantity and of inferior size and quality. In the principal season there is a small importation from the West India Islands. It thrives better in the more humid climate of the interior, and fine trees stand at some of the old settlements on the rivers.

The other fruits enumerated in the opening table are not of a quality or produced in sufficient quantity to call for detailed remarks.

LONDON: Printed by EYRE and SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.